

Claims

1. A device for pumping fluid, with a hydraulic pump (10) and a drive mechanism (12), the hydraulic pump (10) being an external gear pump (20) and as an independent component may be coupled to various types of drive mechanisms (12) as additional components in the manner of a building block system and for this purpose is in the form of an integral coupling piece (14), various hydraulic tanks (16), especially ones with different tank capacities, being provided as a third type of component, the particular hydraulic tank (16) on one side being connectible to the coupling piece (14) and the particular drive mechanism (12) on the other, opposite, side of the coupling piece (14) being connectible to such coupling piece (14), for which purpose the coupling piece (14) has a flange component (40) on at least one side, and sealing means (42) being provided between coupling piece (14) and drive mechanism (12) and hydraulic tank (16), *characterized in that the coupling piece (14) is in the form of a base plate, in that the coupling piece (14) has another flange element (44) on the side opposite the flange element (40) whose external dimensions are adapted to those of other flange element (40), in that both flange elements (40, 44) have on their external circumference side a radial recess (46) for engagement with a sealing means (42) which can be overlapped by the free end of the particular hydraulic tank (16) and the particular drive mechanism (12), and in that the particular hydraulic tank (16) and the particular drive mechanism (12) may together be connected to one side of the particular drive mechanism.*

2. The device as specified in Claim 1, *wherein* the gears (22) of the external gear pump (20) are fully contained in and integral with the coupling piece (14).
3. The device as specified in Claim 1 or 2, *wherein* the gears (22) of the external gear pump (20) are contained in a pump chamber (24) of the coupling piece (14) and are driven in rotation in bearing bushes of the coupling piece (14).
4. The device as specified in Claim 3, *wherein* a suction line (26) connects the interior of the particular hydraulic tank (16) connected to the interior of the pump chamber (24) so that fluid may be conveyed.
5. The device as specified in Claim 4, *wherein* a feed line (30) inside the coupling piece (14) discharges into the pump chamber (24), and *wherein* a tap line (34) opening into the feed line (30) serves the purpose of pressure relief safety.
6. The device as specified in one of Claims 1 to 4, *wherein* an electric motor, in particular a rotary current motor (36) or a direct-current motor (38) or a hydraulic drive is provided as drive mechanism (12).
7. The device as specified in Claim 6, *wherein* the electric motor is contained as a suboil motor in the hydraulic tank (16).

8. The device as specified in one of Claims 1 to 7, *wherein* the drive mechanism (12) together with its drive line (48) may be coupled to the hydraulic pump (10), and *wherein* a fluid seal (50) is present, at least at the site of the drive line (48).
9. The device as specified in one of Claims 1 to 8, *wherein* the external gear pump (20) is situated together with its gears (22) in a vertically extending central plane of the flange-like coupling piece (14) and *wherein* the drive shafts for the gears (22), together with the longitudinal axis of the drive line (48), lie in planes transverse to the longitudinal central plane indicated.
10. The device as specified in one of Claims 1 to 9, *wherein* the hydraulic tank (16) represents a closed structural unit and *wherein* only the fluid contents of the hydraulic tank (16) are used to supply a consuming device to be actuated.